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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HAN CHUL JUNG and SUN AE KIM

Appeal 2016-005997
Application 13/908,494[1]
Technology Center 2600

Before JOSEPH L. DIXON, JENNIFER L. McKEOWN, and JAMES W. DEJMEK, *Administrative Patent Judges*.

McKEOWN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 3, 5, 6, 8, 10, 11, 13, and 15–18. App. Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

STATEMENT OF THE CASE

Appellants' invention is directed to "a method of processing an image captured by a camera at different focal distances and a terminal for performing the same." Spec. ¶ 2. In particular, the method of Appellants' invention

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[1] The real party in interest is Samsung Electronics Co., Ltd.

includes collecting, using a camera, a user image captured at a user focal length and a link image captured at a selective focal length, and storing the user image and the link image by linking the link image with the user image. Using this method, a user can capture a subject and circumstances around the subject when the image is captured.

Abstract.

Claim 1 is illustrative and is reproduced below:

1. A method of processing an image in a mobile terminal, the method comprising:

receiving a user input for capturing a first image including a first subject and a second image including a second subject which is different from the first subject; and

providing the first image and the second image on a display of the mobile terminal,

wherein the first image is captured by a first image sensor and the second image is captured by a second image sensor, the first image sensor having a lens with an adjustable focal length and the second image sensor having a lens with a fixed focal length,

wherein the adjustable focal length is determined based on a distance between the first subject and the mobile terminal that is detected by a distance measuring sensor, and

wherein the second image is smaller than the first image in size and the second image is superimposedly displayed on the first image.

THE REJECTION

Claims 1, 3, 5, 6, 8, 10, 11, 13, and 15–18 are rejected under 35 U.S.C. § 103(a) as unpatentable over Misawa et al. (US 2003/0160886 A1; pub. Sept. 25, 2003), Akiyama et al. (US 2007/0120988, iss. May 31, 2007), and Paxton (US Patent No. 4,989,078, iss. Jan. 29, 1991). Final Act. 2–10.

ANALYSIS

Based on the record before us, we are persuaded that the Examiner erred in rejecting claims 1, 3, 5, 6, 8, 10, 11, 13, and 15–18 as unpatentable over Misawa, Akiyama, and Paxton.

In the Final Action, the Examiner points solely to Misawa's telescopic lens 14B of Figure 8 as the recited distance measuring sensor. *See* Final Act. 3. The Examiner further elaborates, in the Answer, that the "distance measuring sensor as claimed can be anything that hints at a distance between the mobile device and the subject" and that Misawa's paragraphs 15 and 71 describe Misawa's lens focusing "entails working with the distance to a subject." Ans. 2–3. According to the Examiner then, Misawa teaches the claimed distance measuring sensor.

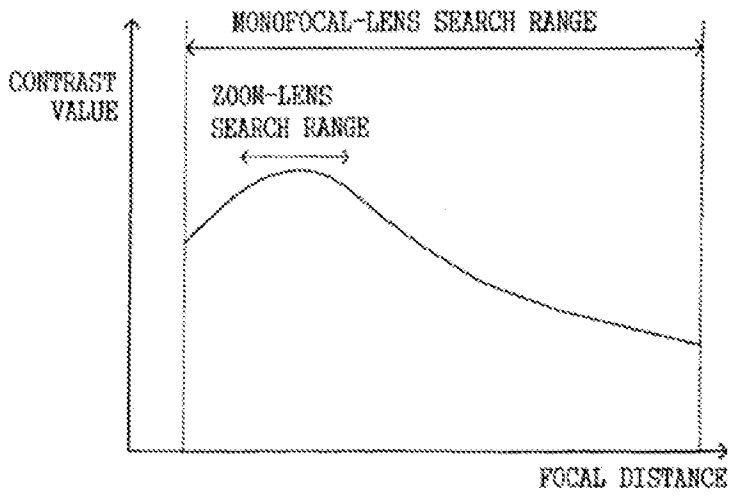
Appellants, though, contest these findings and assert that Misawa fails to teach that the adjustable focal length is determined based on a distance between the first subject and the mobile terminal that is detected by a distance measuring sensor. Reply Br. 2–3; App. Br. 4–5. Specifically, Appellants allege that Misawa lacks a distance measuring sensor that detects the recited distance and, instead, uses contrast values to calculate a focal position. Reply Br. 2–3. For example, Appellants assert that

> Misawa provides more detail in paragraph 248 where it is explained that the contrast values C_t of a search range based on the first system 212A are calculated and a predetermined range including the maximum value of C_t is set as a rough focal distance, whereupon the focusing lens of the second system 212B is driven to the end position of the rough focal distance or range and is controlled so as to move only within the zoom lens search range. The contrast valued C_t at the positions of the zoom-lens search range are calculated so as to set the position of the maximum value of the calculated contrast values as a focal

> position, whereby the fine focal position can be determined. Notably, in all of this explanation of a focusing procedure, Misawa makes no disclosure of determining a distance by a distance measuring sensor. Rather, Misawa explains, with great detail, the use of contrast values (C_t) and the driving of a focusing lens from various ends of ranges so that a focusing time will be shortened.

Reply Br. 2.

We agree with Appellants. Misawa, for example, depicts in Fig. 17, reproduced below, the relationship between the contrast value and a focal distance.



Misawa's Figure 17 Depicting Examples of Auto Focus Control Based on Contrast Values

Misawa explains that the contrast value, particularly the maximum contrast value, is used to set the focal position. *See, e.g.*, Misawa ¶¶ 238, 248, 365; *see also* Misawa Figs. 30, 35–38. As such, we are persuaded that the Examiner fails to sufficiently demonstrate how Misawa teaches or suggests that the adjustable focal length is determined based on a distance between

the first subject and the mobile terminal that is detected by a distance measuring sensor, as required by claim 1.

Accordingly, the Examiner erred in rejecting (1) claim 1, (2) independent claims 6 and 11 reciting similar limitations, and (3) dependent claims 3, 5, 8, 10, 13, and 15–18, as unpatentable over Misawa, Akiyama, and Paxton.

DECISION

The Examiner's decision rejecting claims 1, 3, 5, 6, 8, 10, 11, 13, and 15–18 is reversed.

REVERSED